Entrepreneurial Finance and Venture Capital

In class Test 2

April 29rd, 2025

Name

Number

WRITE YOUR NAME AND NUMBER IN ALL PAGES

You have 75 minutes.

This is a closed book test. Calculators are allowed.

Good luck!

Question 1: Multiple choice (7 points each)

Check all answers that apply; there may be more than one per question. No explanation needed.

A. Which of the following reasons make staging valuable to investors?

i. It creates option value by enabling investors to abandon unsuccessful projects before committing additional capital
ii. It ensures investors are paid before founders in the event of an exit
iii. It helps investors screen high quality startups
iv. None of the above

B. Pro-rata rights are among the most important terms in a deal because:

i. They ensure that future rounds can never be priced below the current round
ii. They give investors the right to maintain their equity stake in future rounds
iii. They give investors the right to sell their stake under the same terms as other investors
iv. None of the above

C. Return persistence is higher in mutual funds than in venture capital.

i. True
ii. False

D. IPO underpricing implies that, on average:

i. IPO shares are listed at a price below the last round of funding before the IPO
ii. IPO shares are listed at a price below their real value
iii. New stocks close their first day of trading below the IPO price

ANSWER:

A_______

B_______

C_______

D_______

Question 2

A new venture has two competing offers for the 3 million euros it wants to raise. VC 1 offers a pre-money valuation of 9 million and would invest in participating convertible preferred stock with a 1X liquidation preference. VC 2 offers a pre-money valuation of 7 million and would invest in convertible preferred stock with a 2X liquidation preference. There are one million shares outstanding before the deal.

A. What equity stake would each VC get under their proposed terms? (7 points) What would be the share price in each case? (7 points)

B. Draw the investor payoff diagram for each offer, assuming the firm exits through a sale. Make sure you label any point at which the slope of the payoff line changes. (8 points)

C. At what exit values do the two offers have an equal payoff for the investor, again assuming an exit through sale? (8 points)

Question 3

A VC invested 25 million in a series B round at a pre-money valuation of 80 million and a share price of 15. Performance has been disappointing though, and the startup is raising a series C of 20 million from a new investor at a share price of 9. What equity stake will the series B investor have after the series C if:

A. The series B investor has no anti-dilution protection? (7 points)

B. The series B investor has full ratchet anti-dilution protection? (7 points)

C. The series B investor has weighted average anti-dilution protection? (7 points)

Question 4

An angel invested 400,000 euros in a convertible note with a 25% discount and no cap. Upon conversion, what was the *value* of the angel's equity stake? (7 points)

Question 5

A VC fund raises 400 million euros from investors. The fund will have a 10-year life and charge management fees of 2% throughout its life and 25% carried interest. The GPs expect the following distribution of returns: 60% of the fund's investments will return 0X, 30% will return 1X and 10% will return 50X. What do they expect the gross multiple (7 points) and the net multiple (7 points) of the fund to be?

Draft paper

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